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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/594,352	06/14/2000	Erik J. Johnson	10559/226001/P8791	8251

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12390 EL CAMINO REAL
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EXAMINER

LIM, KRISNA

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 02/17/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/594,352

Applicant(s)

JOHNSON ET AL.

Examiner

Krisna Lim

Art Unit

2153

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 1-10, 29 and 30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-18 and 23-26 is/are allowed.
- 6) ☒ Claim(s) 11-14 and 19-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 1-30 are still pending for examination, and claims 1-10 and 29-30 have been withdrawn from consideration.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11-14 and 19-22 are still rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. [U.S. Patent No. 5,586,268] in view of Beal et al. [U.S. Patent No. 5,872,956]. These two references have been used since the previous office action.

4. Chen et al. disclosed (e.g., see Figs. 1, 7-8) the invention substantially as claimed. Taking claims 11 and 19 as exemplary claims, the reference disclosed a method, comprising the step of instantiating (e.g., see col. 1 (lines 21-23, 57-58), col. 2 (lines 55-57), col. 2, line 67 to col. 3, line 12) a driver (104 of Fig. 7) to communicate between an operating system (102 of Fig. 7) and a network processor (102 of Fig. 1 or hardware computer peripheral adaptors).

5. In addition, Chen disclosed only a single instance of a device driver that can be used to control multiple peripheral devices in a computer system having a central processor (obviously this processor contains a plurality of registers, see any computer architecture books or any computer dictionary for the teaching of any well processor) for executing an operating system and interface buses each corresponded to different classes of peripheral adaptors. Chen further disclosed the device driver included an initialization

routine for ... to identify predetermined functionally related peripheral adapters and the device driver provided for the common control and management of the communications and control paths between the operating system and each of the peripheral adapters. Chen did not explicitly detail or mention that his initialization routine (in order to identify predetermined functionally related peripheral adapters) included the steps of registering the driver with either the **OS or the network processor (peripheral adaptor)**. However, it would have been obvious to one of ordinary skill in the art to recognize that such teaching of initialization routine would obviously include the registering step because the initialization routine has been known routine for initializing, or setting or registering registers of the processor to a initial value or state. Furthermore, registers are known to exist in any processor and they are also known to be addressable locations in a memory mapped for peripheral devices. Thus, setting these registers to be used for the OS, the network processor or any other peripheral devices would have been obvious to one of ordinary skill in the art.

6. Moreover, such specific feature of registering the driver with the OS and with the network processor is also taught by Beal et al. (e.g., see the abstract, col. 3 (line 49) to col. 4 (line 10) and col. 11, lines 7-10 and the abstract)).

7. Chen et al. disclosed a multiple peripheral adapter device driver for efficiently handling of potentially **multiple peripheral interface adapters through a single instantiation of a device driver in an OS** and Beal et al. disclosed **device drivers that can support various operating systems network protocols and adapter hardware**. Efficiently handling multiple interface adapters through a single instantiation of a device driver in an OS and having device drivers that can support various operating systems network protocols and adapter hardware would have been desirable features in the art at the time the invention was made. Thus, it would have been obvious to one having an ordinary skill in the art to combine the teaching of these two references so

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that the desirable features can be achieved as suggested by the references since they all are directed to the same art (device driver).

8. As to claims 12 and 20, Beal disclosed the driver (125) appears to the OS as a network interface device driver (e.g., see an abstract, col. 3 (line 49) to col. 4 (line 10)).

9. As to claims 13 and 21, Beal disclosed the driver (125) appears to the network processors as a forward interface (e.g., the abstract, col. 3 (line 49) to col. 4 (line 10)).

10. As to claims 14 and 22, Beal disclosed the driver (125) corresponding to a forward interface between a network (Fig. 1) and the network processor (101 of Fig. 1) (e.g., see Figs. 1 and 7, col. 4, line 66, to col. 5, line 11).

11. Claims 15-18 and 23-26 are allowed.

12. The rejections are respectfully maintained and repeat herewith as set forth in the last office action.

13. Applicant's arguments filed 11/12/03 have been fully considered but they are not deemed to be persuasive.

In the remarks, applicants argued in substance that:

- a) Chen teaches nothing about registering the driver with the OS and network processor.
- b) The cited portion (col. 11, lines 7-10) states, in general, the basic idea that a new device driver can be used to support a new operating system or network protocol or adapter hardware. All this states is that a new device driver can be used. It states nothing about using the same device driver with both the operating system and the network processor, as claimed.

- c) While Beal talks in general about the desirability of making a driver that is as flexible as possible so that it can be used with multiple different components. It teaches nothing about using the same device driver with both the operating system and the network processor.

14. As to the paragraph 13 a) above, see paragraphs 5-7 above for more detail of the teaching of Chen. For example, Chen disclosed only a single instance of a device driver that can be used to control multiple peripheral devices in a computer system having a central processor (obviously this processor contains a plurality of registers, see any computer architecture books or any computer dictionary for the teaching of any well processor) for executing an **operating system** and interface buses each corresponded to **different classes of peripheral adaptors**. Chen further disclosed the device driver included an initialization routine for ... to identify predetermined **functionally related peripheral adaptors** and the device driver provided for the common control and management of the communications and control **paths between the operating system and each of the peripheral adaptors**. Yes, Chen did not explicitly detail or mention that his initialization routine (in order to identify predetermined functionally related peripheral adaptors) included the steps of registering the driver with either the **OS or the network processor (peripheral adaptor)**. However, it would have been obvious to one of ordinary skill in the art to recognize that such teaching of initialization routine would obviously include the registering step because the initialization routine has been known routine for initializing, or setting or registering registers of the processor to a initial value or state. Furthermore, registers are known to exist in any processor and they are also known to be addressable locations in a memory mapped for peripheral

devices. Thus, setting these registers to be used for the OS, the network processor or any other peripheral devices would have been obvious to one of ordinary skill in the art.

15. As to paragraph 13 b) and c) above, Examiner respectfully disagrees because Beal et al. clearly disclosed a device driver that can support various OS, Network protocol (Network processor as claimed) and other interfaces. Moreover, Beal et al. disclosed the system component that supported a set of services defined by the device drivers which can be used by the network and adapter components (e.g., see the abstract). Thus, it would have been obvious to one of ordinary skill in the art to recognize that the teaching of a set of service defined by the device drivers which can be used by the network and adapter components would be in fact the teaching of the same device driver with both the operating system and the network processor as claimed language.

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The references are cited in the Form PTO-892 for the applicant's review.

A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) days from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Krisna Lim whose telephone number is (703) 305-9672. The examiner can normally be reached on Monday-Friday from 9:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Glenton Burgess, can be reached at (703) 305-4772. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9700

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [glen.burgess@uspto.gov].

All Internet e-mail communication will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirement of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Office Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

kl

February 16, 2004



KRISNA LIM
PRIMARY EXAMINER